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References—Should conform to the following order: name of author, title of article, name of periodical, with volume, inclusive pages, month and year—i.e.: Lee GS: The heart rhythm following therapy with digitalis—In theory and practice. Arch Int Med 44: 554-562, Dec 1942. They should be listed in the order in which they are cited in the text, numbered in sequence and punctuated as above.

Reprints—Reprints must be paid for by the author at established standard rates.

CONTRIBUTIONS OF "LETTERS TO THE EDITOR"

The Editorial Board will be glad to receive and consider for publication letters containing information of general interest to physicians throughout the State or presenting constructive criticisms on controversial issues of the day.

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BOOKS RECEIVED

Books received by California Medicine are acknowledged in this column. Selections will be made for more extensive review in the interest of readers as space permits.

ACUPUNCTURE THERAPY—Current Chinese Practice—Leong T. Tan, MD, practicing urologist, San Francisco; Margaret Y.-C. Tan, MS, Associate Specialist, Department of Medicine, University of California, San Francisco, and trained Acupuncturist; Ilza Veith, PhD, Professor and Vice Chairman, Department of Health Sciences, University of California, San Francisco. Temple University Press, Philadelphia (19122), 1973. 159 pages, \$15.00.

BIRTH CONTROL—Contraception and Abortion—Harry W. Rudel, MD, Chief of Reproductive Physiology, Brookdale Hospital Center, Brooklyn; Fred A. Kincl, D Sc, Head, Laboratory for Reproductive Biology, Brookdale Hospital Center, Brooklyn; Both Dr. Rudel & Kincl, Adjunct Professor, Department of Obstetrics and Gynecology, Hahnemann Medical College, Philadelphia; and Milan R. Henzl, MD, PhD, Associate Medical Director and Head, Section on Reproductive Physiology, Syntex Research, Palo Alto, California. The Macmillan Company, 866 Third Avenue, New York City (10022), 1973. 372 pages, \$14.50 (Hard cover), \$9.95 (Paperback).

THE BIOLOGICAL ROLE OF THE CLOT-STABILIZING ENZYMES—Transglutaminase and Factor XIII—Editor: K. Laki. Volume 202 of the Annals of the New York Academy of Sciences. The New York Academy of Sciences, 2 East 63rd Street, New York City (10021), 1972. 348 pages, \$26.00.

THE CIBA COLLECTION OF MEDICAL ILLUSTRATIONS—Volume 6—Kidneys, Ureters, and Urinary Bladder—Prepared by Frank H. Netter, MD, Edited by Robert K. Shapter, MD, and Fredrick F. Yonkman, MD, PhD, Editor Emeritus. Ciba Pharmaceutical Company, Division of Ciba Corporation, 556 Morris Avenue, Summit, NJ (07901), 1973. 312 pages, with 236 color illustrations, no price given.

CORRELATIVE NEUROANATOMY & FUNCTIONAL NEUROLOGY Fifteenth Edition—Joseph G. Chusid, MD, Associate Clinical Professor of Neurology, College of Physicians and Surgeons, Columbia University, Director of Department of Neurology, St. Vincent's Hospital and Medical Center, New York City. Lange Medical Publications, Drawer L, Los Altos, CA (94022), 1973. 429 pages, \$8.50.

DISPROPORTIONATE SHORT STATURE—Diagnosis and Management—Joseph A. Bailey, II, MD. Consultant in Orthopaedic Genetics, Medical Center of El Monte, Hospital and Clinic, El Monte, California, Consultant in Orthopaedic Genetics, Hospital for Joint Diseases and Medical Center, New York. W. B. Saunders Company, West Washington Square, Philadelphia (19105), 1973. 589 pages, \$22.50.

EXERCISES IN DIAGNOSTIC RADIOLOGY—Volume Six—Nuclear Radiology—A. Everette James, Jr., ScM, MD, Associate Professor of Radiology and Director, Radiological Research, Department of Radiology, The Johns Hopkins Hospital, Baltimore; and Lucy Frank Squire, MD, Professor of Radiology, Downstate Medical Center, Brooklyn, Consultant in Radiology, Massachusetts General Hospital, Boston. W. B. Saunders Company, West Washington Square, Philadelphia, PA (19105), 1973. 218 pages, \$5.95.

FUNCTIONAL AIDS FOR THE MULTIPLY HANDICAPPED—Edited by Isabel P. Robinault, PhD, Supervisor, Research Utilization Laboratory, ICD Rehabilitation and Research Center, New York City; Formerly Coordinator, Professional Activities, United Cerebral Palsy Associations, Inc., New York City. Harper & Row, Publishers, Inc., Medical Department, 2350 Virginia Avenue, Hagerstown, Md. (21740), 1973. 256 pages with 300 illustrations, \$10.00.

HOSPITALS—A Systems Approach—Raymon D. Garrett—Auerbach Publishers, Inc., 121 North Broad Street, Philadelphia (19107), 1973. 224 pages, \$12.50.

INFECTIOUS DISEASES OF CHILDREN AND ADULTS—Fifth Edition—Saul Krugman, MD, Professor and Chairman, Department of Pediatrics, New York University School of Medicine, Director of Pediatrics, Bellevue Hospital Center, New York City, Director of Pediatrics, University Hospital, New York City; and Robert Ward, MD, Professor of Pediatrics, University of Southern California School of Medicine, Director of Research, formerly Physician-In-Chief, Children's Hospital, Los Angeles, The C. V. Mosby Company, 11830 Westline Industrial Drive, St. Louis, Mo. (63141), 1973. 494 pages, \$21.50.

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TEN FREQUENT MISCONCEPTIONS ABOUT GENETICS

Misconception 1: "Congenital" is synonymous with "genetic." This is not true. Congenital merely means present at birth, usually in a structurally evident form or a potentially evident form. It has no necessary connotations as to cause. We have congenital malformations such as rubella embryopathy and thalidomide embryopathy which are not genetic; and we have genetic disorders such as Huntington's chorea and muscular dystrophy which are not congenital.

Misconception 2: If a disorder is inherited, a chromosome analysis will show abnormality. For

(Continued from Page 30)

INVISIBLE LOYALTIES—Reciprocity in Intergenerational Family Therapy—Ivan Boszormenyi-Nagy, MD, Director, Family Psychiatry Division, Eastern Pennsylvania Psychiatric Institute, Associate Professor of Psychiatry, University of Pennsylvania, Senior Consultant in Family Therapy, West Philadelphia Community Mental Health Consortium; and Geraldine M. Spark, MSW, Associate Director, Family Psychiatry Division, Eastern Pennsylvania Psychiatric Institute, Philadelphia. Harper & Row, Publishers, Inc., Medical Department 2350 Virginia Avenue, Hagerstown, MD (21740), 1973. 436 pages, \$12.50.

LEPROSY—Diagnosis and Management—Second Edition—Harry L. Arnold, Jr., MD, Dermatology Department, Straub Clinic, Clinical Professor of Dermatology, University of Hawaii School of Medicine, Honolulu; and Paul Fasal, MD, Chief, Leprosy Service, U.S. Public Health Service Hospital, Associate Clinical Professor of Dermatology, University of California, San Francisco. Charles C Thomas, Publisher, 301-327 East Lawrence Avenue, Springfield, IL (62703), 1973. 93 pages, \$14.75.

LITHIUM IN MEDICINE—Edited by Joseph Mendels and Steven K. Secunda. Gordon and Breach, Science Publishers, Inc., 440 Park Avenue South, New York City (10016), 1972. 221 pages, List Price: \$12.50/Prepaid \$10.00, Text: \$7.50.

THE LOW BLOOD SUGAR COOKBOOK—Margo Blevin and Geri Ginder; Foreword by Herbert B. Goldman, MD. Doubleday & Company, Inc., 277 Park Avenue, New York City (10017), 1973. 520 pages \$8,95

MENTAL HEALTH CONSULTATION AND EDUCATION—Arnold R. Beisser, MD, Director, Center for Training in Community Psychiatry, Los Angeles; with Rose Green, MSS, Professor Emeritus, School of Social Work, University of Southern California. The National Press, 850 Hansen Way, Palo Alto, CA 94304. 158 pages, \$4.95.

MINIMAL BRAIN DYSFUNCTION—Volume 205 of the Annals of the New York Academy of Sciences—Editors: Felix F. De La Cruz, National Institute of Child Health and Human Development; Bernard H. Fox, National Institute of Neurological Disease and Stroke; and Richard H. Roberts, CIBA Pharmaceutical Company. The New York Academy of Sciences, 2 East 63rd Street, New York City (10021), 1973. 396 pages, \$30.00.

NEONATAL HEART DISEASE—Edited by William F. Friedman, MD, Chief, Division of Pediatric Cardiology, Associate Professor of Pediatrics and Medicine, University of California, San Diego, School of Medicine, Michael Lesch, MD, Department of Medicine, Harvard Medical School; and Edmund H. Sonnenblick, MD, Director of Cardiovascular Research, Harvard Medical School. Grune & Stratton, Inc., 111 Fifth Avenue, New York City (10003), 1973. 299 pages, \$18.50.

OUTPATIENT SERVICES JOURNAL ARTICLES—Second Edition—Edited by Vivian Vreeland Clark, RN, ED D, Assistant Professor, Herbert H. Lehman College of the City University of New York, Bronx. Medical Examination Publishing Company, Inc., 65-36 Fresh Meadow Lane, Flushing, NY (11365), 1973. 348 pages, \$10.00.

PATIENT SERVICES TRAINING MANUAL—Tom L. Clark, MSW, Harvey Caplan, MD, Suzanne Cecil, MSW, Marjorie Gans, MS, Carol Lyke, MS, Katherine Marks, RN, Kathryn McQuown, Meredith Minkler, MPH, Leslie Minkow, RN; and Mary Shakespeare, RN, MPH. Planned Parenthood/World Population, Alameda-San Francisco, 476 West MacArthur Bivd., Oakland, Ca. (94609), 1973. 83 pages, \$4.00 per copy postpaid; \$3.50 per copy, postpaid for 10 to 50 copies.

THE POWER AND THE FRAILTY—Jean Hamburger, Professor of Medicine, University of Paris. The Macmillan Company, 866 Third Avenue, New York City (10022), 1973. 140 pages, \$4.95.

PRESCRIPTION FOR NATIONAL HEALTH INSURANCE—A Proposal for the U.S. Based on Canadian Experience—Peter Fisher. North River Press, Box 241, Croton-on-Hudson, NY (10520), 1972. 158 pages \$6.00.

the most part, this is not true. Those conditions which display simple inheritance patterns are single gene defects, and the defect is at a sub-, sub-, submicroscopic level.

Misconception 3: A buccal smear provides full information on the chromosomes. This is not true. A buccal smear is sort of a poor man's karyotype. It gives information on the state of the X chromosomes mainly and not on the Y chromosome.

Misconception 4: If a genetic disorder is dominant, all children of an affected person will be affected; similarly if all children of normal parents are affected by a genetic disorder, this is evidence of dominant inheritance. This is not true, of course. This is misinformation about the significance of dominance.

Misconception 5: Where only males or females in a family are affected, for example, a father and all four sons but none of his four daughters, this is an indication of sex linkage. This is not true.

Misconception 6: A disorder which occurs in multiple brothers and sisters with normal parents is nonhereditary. This is not true. This is the pattern of recessive inheritance, and a recessive disorder is as genuinely hereditary as a dominant one.

Misconception 7: The occurrence of a hereditary syndrome composed of two or more manifestations is the result of close linkage on the same chromosome of separate genes, each resulting in one of the individual manifestations. This is not true. The basis for hereditary syndromes, as analyzed in detail, is pleiotropism—multiple effects of a single gene.

Misconception 8: Dominant disorders are frequent; recessive disorders are rare. This is not true. There is no necessary relationship between how a condition is inherited and how frequent it is.

Misconception 9: If a couple has had three children born with a given recessive disorder, the chance of a fourth child also being affected is vanishingly small. This is not true. It is like flipping a coin, and the chance is one in four each time. The coin flipping analogy is a good one to use in genetic counseling because if you tell parents who have had a child born with cystic fibrosis, phenyl-ketonuria or some recessive disease that the risk is one in four they may think they have had their defective child and can have three more who will certainly be okay.

Misconception 10: Hereditary disease is not treatable. Limitations of time don't permit me to document that this, too, is a misconception!

-VICTOR A. MCKUSICK, MD, Baltimore, Maryland Extracted from Audio-Digest Internal Medicine, Vol. 18, No. 15, in the Audio-Digest Foundation's subscription series of tape-recorded programs. For subscription information: 1930 Wilshire Blvd., Suite 700, Los Angeles, Ca. 90057